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Response Under 37 C.F.R. §1.116 - Expedited Examining Procedure
Serial No.: 10/676,324
Confirmation No.: 6481
Filed: September 30, 2003
For: PRODUCTION OF HYDROGEN FROM ALCOHOLS

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Remarks

The Advisory Action mailed September 21, 2006 has been received and reviewed. No claims having been added, amended, or canceled herein, the pending claims are claims 1-24, 26-33, 35-40, and 42-50.

Reconsideration and withdrawal of the rejections are respectfully requested in view of the remarks presented herein.

Rejections under 35 U.S.C. §103

The only rejections maintained in the Final Office Action mailed July 21, 2006 were the rejections under 35 U.S.C. §103(a) of claims 1-7, 13-21, 26-30, 35-37, 42-45, and 50 as being unpatentable over Maruko (CA 2323728) in view of Krummenacher et al. ("Catalytic Partial Oxidation of Higher Hydrocarbon at Millisecond Contact Times: Decane, Hexadecane, and Diesel Fuel"); claims 8-12, 22-24, 31-33, 38-40, and 46-49 as being unpatentable over Maruko in view of Krummenacher et al. as applied to the claims above and further in view of Anzai et al. (2003/0060364 A1); claims 1-24, 26-33, 35-40, and 42-50 as being unpatentable over Anzai et al. in view of Krummenacher et al. and Hu et al. (U.S. Patent No. 5,597,771); and claims 1-24, 26-33, 35-40, and 42-50 as being unpatentable over Anzai et al. in view of Maruko and Krummenacher et al.

In the Response submitted September 6, 2006, Applicants noted that the present application claims priority to U.S. Provisional Application Serial No. 60/415,072, filed October 1, 2002. Applicants also noted that all the rejections rely on Krummenacher et al., and thus, because Krummenacher et al. published after the priority date of the present application, Krummenacher et al. is not available as art under 35 U.S.C. §102 and/or §103 against the present application.

In the Advisory Action mailed September 21, 2006, the Examiner replied by asserting that Krummenacher et al. qualifies as prior art, alleging that the provisional application does not provide adequate support under 35 U.S.C. §112, first paragraph, for the most recently added claim limitations. Applicants earnestly disagree.

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Applicants respectfully submit that the presently rejected claims, including the most recently added claim recitations, are adequately supported by U.S. Provisional Application Serial No. 60/415,072, filed October 1, 2002. Specifically, in the Amendment and Response submitted April 24, 2006, claim 1 was amended to recite "forming a film of a composition . . . on a wall of a reactor; [and] vaporizing the composition;" and claims 18, 28, 35, and 42 were amended to recite "forming a film of the feed gas on a wall of a reactor; [and] vaporizing the feed gas."

For example, U.S. Provisional Application Serial No. 60/415,072, filed October 1, 2002, recites the following:

Advantageously, a fuel injector apparatus may be used to vaporize the fuel (i.e., the alcohol and water, if present), and mix and inject the feed gas into the reactor. The fuel injector takes the place of the syringe pump, heating coil, and mixing T of the basic reactor set up. The fuel injector provides introduction of the feed gas to the reactor. A typical apparatus for this embodiment is shown in Figure 2. This apparatus is advantageously used to assist in the rapid heat exchange of the relatively cold feed gas upon contact with the catalyst. (Page 4, lines 26-33 of U.S. Provisional Application Serial No. 60/415,072, filed October 1, 2002).

Applicants further direct the Examiner's attention to Figure 2 of U.S. Provisional Application Serial No. 60/415,072, filed October 1, 2002, which illustrates a "[r]epresentative apparatus for partial oxidation of ethanol using a Fuel Injector apparatus to vaporize the feed gas" (page 3, lines 1-2 of U.S. Provisional Application Serial No. 60/415,072, filed October 1, 2002). Figure 2 illustrates, among other things, the formation of a "[t]hin film" on a wall of the reactor, as highlighted in the annotated copy of Figure 2 attached herewith as EXHIBIT A. Applicants invite the Examiner to contact Applicants' Representative in the event that any further clarification is required.

For at least these reasons, Applicants respectfully submit that the present claims are fully supported by U.S. Provisional Application Serial No. 60/415,072, filed October 1, 2002, and that the rejection of claims 1-24, 26-33, 35-40, and 42-50 under 35 U.S.C. §103(a) is moot.

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Entry and consideration of the remarks presented herein and in the Amendment and Response submitted September 6, 2006 are respectfully requested.

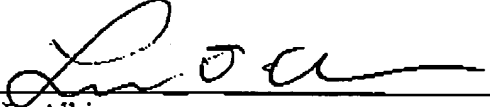
Summary

It is respectfully submitted that all the pending claims are in condition for allowance and notification to that effect is respectfully requested. The Examiner is invited to contact Applicants' Representatives at the telephone number listed below if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted
By
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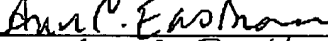
October 12 2006
Date

LDA/ace

By: 
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CERTIFICATE UNDER 37 CFR §1.8:

The undersigned hereby certifies that the Transmittal Letter and the paper(s), as described hereinabove, are being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the Patent and Trademark Office, addressed to Commissioner for Patents, Mail Stop AF, P.O. Box 1450, Alexandria, VA 22313-1450, on this 12th day of October, 2006, at 2:22 pm (Central Time).

By: 
Name: Ann C. Eastham